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>From ???@??? Tue Jan 13 02:01:11 1998  
Message-Id: <199801130624.AAA14125@sco.theporch.com>  
Date: Tue, 13 Jan 1998 00:24:27 CST  
Subject: BOATANCHORS digest 1876

BOATANCHORS Digest 1876

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- 18) Re: Transformer hum?  
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- 19) Help with Drake TR-4 on CW

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- 20) Re: ARC-5 Receiver Questions?  
by Michael Hanz <AAFRadio@erols.com>
- 21) It Lives  
by Spencer Petri <spetri@e-tex.com>
- 22) Re: Leeds 203A  
by "Roberta J. Barmore" <rbarmore@indy.net>
- 23) Re: Leeds 203A  
by William Donzelli <william@ans.net>
- 24) Trade/Buy??  
by Sandy W5TVW <ebjr@worldnet.att.net>
- 25) Fw: Aspects of German Construction Technology  
by Ho4bart <Ho4bart@aol.com>
- 26) Wanted: Information on the National NCX-1000  
by Hal Waite <halwaite@sprintmail.com>
- 27) Re: Transformer hum?  
by Ken Gordon <keng@uidaho.edu>
- 28) Re: TCS Help  
by Edward Zeranski <ejz@nosc.mil>
- 29) BigWillie 5100  
by Edward Zeranski <ejz@nosc.mil>

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Date: Mon, 12 Jan 1998 09:30:09 -0800  
From: Brian.Harris@sv.sc.philips.com (Brian Harris)  
To: boatanchors@theporch.com, baswaplist@foothill.net  
Subject: TS-382 C/U manual  
Message-ID: <001074F7.001914@svlima.sv.sc.philips.com>

The TS-382 C/U Audio Generator I have relied on for nearly thirty years finally needs some help (clipping on the positive peak). I have no manual nor even a schematic for it. Can anyone help me?

It is made by Specialty Assembling and Packaging. The contract number is AF 33(036)-26089 and the serial number is 6270 if that matters. By the way, these generators cover 20 to 200K CPS, which is nice for those LOW frequency IF's.

73, Brian Harris WA5UEK

P.S. Yesterday, with the help of list members, Jay Miller and Roger Dillon, the first section of my 88' self-supporting tower is now sitting firmly in 8+ cubic yards of concrete. Thanks again guys.

-----  
Date: Mon, 12 Jan 1998 13:58:57 -0600 (CST)  
From: Spencer Petri <spetri@e-tex.com>  
To: boatanchors@theporch.com  
Subject: More Reading High Voltage  
Message-ID: <199801121958.NAA27731@sco.theporch.com>

Hello,

If the probe is rated for 100KV I would still clip it to the measurement point and then turn on the circuit, standing only close enough to read the meter.

GL,

73 de Pete WA5JCI EM21 "the future will be better tomorrow"

.....  
6 Mtr -- WAS #490, WAC CW, DXCC/91 Countries, VUCC #361/626 Grids  
.....  
2 Mtr -- 36 States -- VUCC #346/183 Grids

-----  
Date: Mon, 12 Jan 1998 20:01:08 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: kayser <kayser@rideau.net>  
Cc: "B.H.Jarvis" <B.H.Jarvis@hw.ac.uk>, boatanchors <boatanchors@theporch.com>  
Subject: Re: EL32's  
Message-ID: <199801122001.UAA06669@punt1.hw.ac.uk>

On 1998-01-11 kayser@rideau.net said:

ka>Date: Sat, 10 Jan 1998 17:31:30 +2400  
ka>Who wanted EL32? Pse email b.h.jarvis@hw.ac.uk  
ka>Bill, aka maestro@cix.co.uk.  
ka>GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke  
ka>Hawkering I am also looking for two of these if they can be found  
ka>for my B2 Suitcase... Larry

Don't know about 2 - it took me quite a lot of personal enquiring to raise ONE! But I'll ask. Can't do it immediately - he's an old gentleman and if I chose the wrong moment he would say he had never found the first one.....

Bill Jarvis, aka b.h.jarvis@hw.ac.uk  
GM8APX, qthr=No 6, EH4 6JY==No Rectangulars=Cave Felem==Ikke Hawkering

Timeo Danaos et dona ferentes

Net-Tamer V 1.10 - Registered

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Date: Mon, 12 Jan 1998 12:01:03 -0800  
From: "Robert E. King" <reking1@ix.netcom.com>  
To: boatanchors@theporch.com  
Subject: Re: Leeds 203A  
Message-ID: <3.0.2.32.19980112120103.006a4438@popd.ix.netcom.com>

Leeds Radio was a popular WWII surplus electronics dealer located in the "Radio Row" area of downtown NYC. They were active in the late '40s and early '50s and always had a good selection of stuff. I suspect that they folded-up when the area was re-developed for the World Trade Center. Considering the amount of equipment that passed through their hands, it is not surprising that some of it is still kicking around.

Bob King

-----  
Date: Mon, 12 Jan 1998 12:09:37 -0800  
From: "larry W6WUH" <rau@wco.com>  
To: "boatanchors" <boatanchors@theporch.com>  
Subject: Wither tubes  
Message-ID: <199801122011.MAA11169@shell.wco.com>

Question was asked.. which way tubes would have gone without xsters.. well i'd guess with radio isotopes providing the ions that heaters do...there is a scary thought....

but look at it this way... if they are making us all have smoke detectors inorder to dump radio active waste 9 iyt has even been proposed to puyt it in our food in order to 'evenly distribute it".. and they are willing to seel us tritrim wristwatches... i think some high level plutonium power tubes couldn't be far behind...

so if i can imaginine it.. it probably has already existed for a few

decades in some military project

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Date: Mon, 12 Jan 1998 12:23:06 -0800  
From: "larry W6WUH" <rau@wco.com>  
To: "boatanchors" <boatanchors@theporch.com>  
Subject: BA Sightings Pima Air ans Apace Museum AZ  
Message-ID: <199801122025.MAA16351@shell.wco.com>

Aboard the Kennedy/Johnson Airforce One

a nice BC-348-R at the navigators position as well as a rack  
of ARC 51 and one Collins Avionics piece ( probably a vhf xmtr)

Unfortunately most aircraft and helicopters have the windows all painted  
black ( sun block) and are locked up...few that were not painted up had  
radios pulled from panels.

Incredible collection of Aircraft.. primarily military.. but great  
collection of early general aviation and especially experimental stuff..  
like the Hiller flying platform...the museum has virtually no displays  
nor information about radios or radio systems as they developed along with  
the aircraft.. and trust me they did !

The Liberator display is fabulous... with the ARC-5's clearly visible...  
this is one airplane where they have made an effort to restore the plane  
down to the last detail.. and make it visible from the bombay...

Now i know where some of those funny little patch boxes and gasoline  
generators and radios belong (ed).

If you are near Tucson...Pima air museum is a must... no excuses !

Larry Rau W6WUH

-----  
Date: Mon, 12 Jan 1998 12:39:30 -0800  
From: "larry W6WUH" <rau@wco.com>  
To: "boatanchors" <boatanchors@theporch.com>  
Subject: rivets.. more  
Message-ID: <199801122041.MAA22497@shell.wco.com>

in the otherwise fabulous Morrow rigs the tube sockets are riveted to the

aluminum chasis.

I noticed in one reciever that wiggling the audio or if ( i forget) tube cause the thing to quit/work.

Seems the tube base is also the common ground point for many things. and a little dissimilar metal action over time can cause these things to become intermittant... cure ? well you can take a punch, a ball peen hammer, and a nice heavy wieght borrowed from your auto body tools.. and reset the rivits ( no air tools or clecos you airframe guys !) or else.. gently drill out the rivet. and replace it with the normal screw, lockwasher and solder lug combo...

Since I didnt see any evidence of even minor surface corrosion ( scale) and certainly no white powder or pititing.. i would gamble the rivit wasnt set properly in the first place and would try to gently persuade it with a punch.... properly backed up..and a hammer.... but with out the backup you get a badly bent chasis.. so caution is the word eh ?

Larry

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Date: Mon, 12 Jan 1998 21:14:34 +0000  
From: Sandy W5TVW <ebjr@worldnet.att.net>  
To: Mark\_Dittmar@maxtor.com, boatanchors@theporch.com  
Subject: Re: PS for MULTI-ELMAC PMR7  
Message-ID: <19980112211433.AAA23172@LOCALNAME>

At 07:41 PM 1/12/98 +0000, you wrote:

> Hi-

>

> I recently picked up a Multi-Elmac PMR7 mobile rx. Before I build  
>a power supply for it, does anybody know what the model number for the  
>companion multi-elmac PS for this is ( if there was one )? Anybody have  
>one for sale ?

>

> 73,

>

> Mark Dittmar

> AB0CW

>

There are several. The PSR-117 (for AC) and the PSR-612 (6-12 VDC). Also the M1070 (which is 6/12 VDC & 117 VAC). All the power supplies will run the AF-67 AND the PMR-7 receiver. If you have the parts available a power supply for just the receiver would be very easy to build.

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"  
417 Ridgewood Drive  
Metairie, LA., 70001

\*\*860 Hartley 'ECO' under construction\*\*\*\*  
\*\*\* Looking for a TRC-10 transceiver \*\*\*\*\*  
\*\*\* Looking for an RAL receiver \*\*\*\*\*

-----  
Date: Mon, 12 Jan 1998 16:15:22 -0500  
From: John Shriver <jas@brill.shiva.com>  
To: rau@wco.com  
Cc: boatanchors@theporch.com  
Subject: Re: rivets.. more  
Message-ID: <199801122115.QAA11841@brill.shiva.com>

Steel and aluminum form a handy little battery (electrolytic potential), and are inherently prone to corrosion when in contact. (This was a major problem General Motors had when they started making steel-framed passenger busses with aluminum skins in the early 1960's.) It's worse with stainless steel and aluminum, I think.

So, steel sockets connected to an aluminum chassis without some strong springing (a good lockwasher) are an invitation to future problems if the connection is intended to be more than mechanical.

Tektronix tended to use a thread-cutting steel screw to secure tube sockets to their aluminum chassis, probably to get as clean and protected a connection as possible. (This was through the freshly cut threads inside the hole between the dissimilar metals.)

There are compounds intended to inhibit this corrosion, and provide good electrical conductivity between, steel and aluminum. They are used on subway third rails to bolt aluminum conductive bars on the side of steel rails. They are used in combination with Huck bolts that the dissimilar-metal joint under enormous pressure. (Of course, we're talking 1000+ amps at 750 volts here!)

I suppose that the compounds intended to try and make aluminum house wiring safe might well be useful when trying to make good contact between tube sockets and aluminum chassis. Should be available at an electrical supply house.

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Date: Mon, 12 Jan 1998 16:13:22 -0500 (EST)

From: "Roberta J. Barmore" <rbarmore@indy.net>  
To: "Robert E. King" <reking1@ix.netcom.com>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Leeds 203A  
Message-ID: <Pine.SUN.3.96.980112160630.9821A-100000@indy3>

Hi, Gang!

I mentioned in private e-mail--Leeds was around in the '30s and late '20s, selling assembled gear and parts of all kinds, from panels & chassis & "crystalline finish" black paint to mics and tubes and keys. Hadn't realized they made it though WW II.

...But I could swear having seen a \*recent\* ad in a tube hi-fi resource book for a "Leeds" in the NYC/NJ area. Did't really register at the time (reading too many old radio mags too often?)--now I'll have to try to hunt back and find it.

73,  
--Bobbi

(Got another tooth filled this AM--darn it, any more they always hurt like the dickens after. Yeeeeeech. Maybe it's the RF?)

-----  
Date: Mon, 12 Jan 1998 17:39:45 -0500 (GMT-0500)  
From: L & M <toneri@ils.net>  
To: gcr2@po.CWRU.Edu  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Viking Challenger help.  
Message-ID: <199801122239.RAA15928@server1.ils.net>

At 02:39 PM 1/11/98 -0500, George C. Rybicki wrote:

>I am trying to restore a Johnson Challenger transmitter. It is a 6au6  
>driving a 6dq6 driving a pair of 6dq6's, clamped by a 6aq5. I am having  
>a problem in the final section I believe. The finals draw 50 ma current  
>even in the tune position, with the key up in CW the finals can draw  
>up to 100 ma, depending on the load control. This seems too high to me,  
>anyone have any comment or suggestions. I suspect I have some feedback  
>all the tube voltages and resistances are about right and I do get 80w out  
>on CW. Thanks George  
>

It sounds like the clamp tube circuit is not working correctly. I had a Challenger and the key-up plate current should be zero or very near zero. Replace the 6AQ5 tube first and if that doesn't cure the problem, check the 6DQ6 final amplifier tubes for filament to cathode shorts. This can cause a



similar problem. If the tubes are OK, start checking the component values in the clamp tube circuit. Oh yes, the first thing you should check is the power supply, especially the filter capacitors. If there is a significant amount of AC ripple in the B+ supply voltage, it will fool the tubes into thinking there is not enough bias to cut them off during key-up. I was able to get about 110 watts out of my Challenger on CW.

73...Mike VE3FGU

\*\*\*\*\*

Mike & Lynda Toneri     E-mail:   toneri@ils.net  
Keswick, Ontario

WEBPAGE:   <http://www.geocities.com/heartland/meadows/8218>

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Date: Mon, 12 Jan 1998 17:40:25 EST  
From: w4bld@juno.com (Robert B. Kerby)  
To: boatanchors@theporch.com  
Subject: WANT: Book on Gonset GSB-2, not 201  
Message-ID: <19980112.175920.8263.10.W4BLD@juno.com>

I am sorry to have posted the wrong unit number. Please accept my apology for using the bandwidth. What I really need is a book on the GSB-2, a hybrid unit for AM, USB, and CW. Thanks, Bob

- - - - -

Robert B. Kerby - w4bld@juno.com  
PO Box 991   ( 231 Rosser Avenue)  
Waynesboro, VA 22980 (540) 942-4356  
Collect: Morrow, Gonset, Elmac

-----

Date: Mon, 12 Jan 1998 14:53:07 -0800  
From: Ken Corwin <kenc2@pacbell.net>  
To: "Hanz, Mike, KC4TOS" <aafradio@erols.com>  
Cc: Boatanchors at the Porch <boatanchors@theporch.com>  
Subject: Re: ARC-5 Receiver Questions?  
Message-ID: <34BA9ED3.7E9D@pacbell.net>

Hello, Mike -

The run-of-the-mill LF/HF ARC-5 receivers with which most of us are familiar have only one 12SF7, no 12SL7's, and a 12A6 with no internal diode.

Would you be kind enough to describe the ARC-5 command receiver that you just acquired?

Thanks, Ken Corwin, KF6NUR Santa Clarita, CA

-----  
Date: Mon, 12 Jan 1998 23:09:33 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: richardlo <richardlo@DEVAX.ADMIN.ATHABASCAU.CA>  
Cc: boatanchors <boatanchors@theporch.com>  
Subject: Re: the hazards of reading high voltage supplies  
Message-ID: <199801122309.XAA07397@punt1.hw.ac.uk>

On 1998-01-12 richardlo@DEVAX.ADMIN.ATHABASCAU.CA said:

ri>Stan you are not the only person to ask why I care about high power  
ri>high voltage supplies vs. low power supplies. Some who asked were  
Less than a year ago a substation caught fire in a Glasgow suburb and 2  
technicians were killed. Witnesses at a subsequent enquiry allegedly  
stated that the men had not received proper training in the correct use  
of the right kind of probes for the 25 kV range. It is rumoured that  
along insulated probe fell loose and shorted a busbar. The molten metal  
fell into cooling oil starting the fire. Of course they had kiloamps  
handy; we talk of the odd ampere.

I've seen teachers get familiar with up to hundreds of kilovolts from  
extremely low current sources like van de Graaf generators...one year at  
an annual Science Teachers' Meeting we made a Leyden Bucket using a  
plastic dustbin and started it charging from a several kV source limited  
to under 1 mA. We forgot about it and when it decided to rupture it  
sounded like an indoor thunderstorm, and crashed all the computers in  
our and neighbouring labs.

It waits until you are not looking.

Bill, aka maestro@cix.co.uk.  
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Hennus non potest de aliquid superficere mentem

Net-Tamer V 1.10 - Registered

-----  
Date: Mon, 12 Jan 1998 23:09:38 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: rau <rau@wco.com>

Cc: boatanchors <boatanchors@theporch.com>  
Subject: Re: Wither tubes  
Message-ID: <199801122309.XAA07400@punt1.hw.ac.uk>

On 1998-01-12 rau@wco.com said:

ra>Status:  
ra>Question was asked.. which way tubes would have gone without xsters.  
ra>. well i'd guess with radio isotopes providing the ions that  
ra>heaters do...there is a scary thought....  
ra>but look at it this way... if they are making us all have smoke  
ra>dectectors inorder to dump radio active waste 9 iyt has even been  
ra>proposed to puyt it in our food in order to 'evenly distribute it"..  
ra>and they are willing to seel us tritrim wristwatches... i think  
ra>some high level plutonium power tubes couldn't be far behind...  
ra>so if i can imaginine it.. it probably has already existed for a few  
ra>decades in some military project

The luminous paint used on WWII instrument dials is still much to be avoided.

I had a filament bulb once which continued to glow long after being switched off; there was a glass tube containging a green powder, attached to the top of the stem which supported the standard 60 watt filament. It was marketed as a nightlight which glowed log enough to let the kids get to sleep. Never did me any weedle-beedle-bleepp-tic-tic-boing....

Bill, aka maestro@cix.co.uk.  
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Quem deus vult perdere prius dementat

Net-Tamer V 1.10 - Registered

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Date: 12 Jan 1998 17:25:18 -0600  
From: "A. B. Bonds" <ab@vuse.vanderbilt.edu>  
To: boatanchors@sco.theporch.com  
Subject: Transformer hum?  
Message-ID: <1998Jan12.172521-0600@spike.vuse.vanderbilt.edu>

Dug into my HQ-120X this past weekend. Among other pathologies, the original power transformer appears to have become vaporized, judging from the amount of black crud on the chassis in that region. A replacement transformer had been installed.

(1) The audio output transformer sits about an inch away from the power xfmr. I get a very audible hum the instant I turn the set on (before tubes warm). I loosened the audio xfmr mount and moved it away from the chassis, the hum reduced. It seems the power transformer is leaking a fair 60 Hz field that gets picked up by the audio xfmr. Is this kind of leakage expected from any transformer, or does it vary? The replacement unit does have a steel shell.

(2) Curious. The secondaries of the replacement xfmr were 7.25 v (!) and 125 v (!!). Needless to say, the tubes ran a bit hot. I put a 0.25 ohm 10 w resistor in the filament line to drop it to 6.25 v. The HV secondary was run through a sand-state voltage doubler. This was a little noisy, but with the judicious addition of a choke (ex old audio output transformer, 8 Hy, 200 ohm) it quieted right down. Not pristine, but functional. Of course, if anyone has a vertical mount power xfmr that gives about 300 v at 150 mA and 6 v at about 4A, let's talk....

A. B. Bonds

-----  
Date: Mon, 12 Jan 1998 18:13:00 -0600  
From: bdhall@ghg.net (Benjamin D. Hall)  
To: ab@vuse.vanderbilt.edu, Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Transformer hum?  
Message-ID: <3.0.32.19980112181228.006e4228@mailman.ghgcorp.com>

>(1) The audio output transformer sits about an inch away from the  
>power xfmr. I get a very audible hum the instant I turn the set on  
>(before tubes warm). I loosened the audio xfmr mount and moved it  
>away from the chassis, the hum reduced. It seems the power  
>transformer is leaking a fair 60 Hz field that gets picked up by the  
>audio xfmr. Is this kind of leakage expected from any transformer,  
>or does it vary? The replacement unit does have a steel shell.

Greetings all.

I've been reading some tube audio design books recently, basically to learn about the tube audio craze, and maybe to build a tube amp someday.

One of the things I've read is that layout of transformers is very important, as the power xformer can generate magnetic flux that can be induced into a transformer nearby, like your audio output unit. The suggest mounting the power and output xformers as far apart as possible, with the turns at right angles to each other.

Looking into my Heathkit AA-100 amp, I see this done - the power and output

xformers are far apart as possible, and the windings on the output x-formers are in circles parallel to the chassis, while the power xformer windings are in circles perpendicular to the chassis. I wonder since your power xformer is a replacement, that it is wound in a direction different than the original?

73,  
Ben  
---

Benjamin D. Hall, KD5BYB, Engine and radio collector / operator.  
Located in Houston, Texas, USA.  
e-mail: BDHall@ghg.net, web: <http://www.ghgcorp.com/bdhall>.  
"An ye harm none, do what ye will."

-----  
Date: Tue, 13 Jan 1998 12:02:15 +1100  
From: Morris Odell <morriso@vifp.monash.edu.au>  
To: ab@vuse.vanderbilt.edu  
Cc: boatanchors@sco.theporch.com  
Subject: Re: Transformer hum?  
Message-ID: <34BABD17.395F@vifp.monash.edu.au>

Hi,

> (1) The audio output transformer sits about an inch away from the  
> power xfrmr. I get a very audible hum the instant I turn the set on  
> (before tubes warm). I loosened the audio xfrmr mount and moved it  
> away from the chassis, the hum reduced. It seems the power  
> transformer is leaking a fair 60 Hz field that gets picked up by the  
> audio xfrmr. Is this kind of leakage expected from any transformer,  
> or does it vary?

It's pretty common in my experience, and not only from transformers. A classic experience I had was with the local audio output transformer in the R390A, which is mounted right next to a steel cased filter choke. I replaced the transformer with an unshielded one with a 8 ohm secondary and found that I had to juggle it around quite a bit to avoid the 100 Hz ripple field of the choke. "Searching" around a transformer with a small coil connected to headphones or a 'scope can be very instructive.

The effective series reactance of a transformer is due to "leakage" of flux from the core. It is dependent on the specific geometry of the transformer and some geometries such as toroids have very little. It can be thought of as flux lines generated by the primary that have leaked away from the core which is meant to guide them to the secondary. Lines produced by the primary that do not induce an emf in the secondary result in "self inductance" of the primary (and vice versa for the

secondary). Some of this leaked flux will appear outside the transformer and may induce currents in any handy conductor including a winding of an adjacent transformer. In fact the magnetic core of an adjacent transformer would attract stray flux lines as it's much easier for them to travel through steel than air. (lots of analogies with stray currents attracted to low impedance pathways here - in fact one of the ways we were taught to design cores years ago involved field plotting on conductive paper to determine the field pattern and then calculate the leakage flux).

73 de Morris VK3DOC

-----  
Date: Mon, 12 Jan 1998 14:46:45 -0800 (PST)  
From: Stanley Wilson <microres@crl.com>  
To: boatanchors@theporch.com  
Subject: Help with Drake TR-4 on CW  
Message-ID: <Pine.SUN.3.91.980112143936.20507A-100000@crl9.crl.com>

I have a TR-4 which I have not used for about 4 years. I used it on SSB all the time for years. Anyway power it back up and still sounds great.

I want to run some CW with it. Does not have QSK, but break-in should work. Hit the key go to xmit, stop keying and xmit should go back to receive. The vox and anti vox control these items. Also I find that the level of the side tone plays a role.

My Problem:

The manual does not tell one the proper way to go about setting the VOX, ANTI-VOX and Side Tone Level if you want to set it up for break-in CW.

Anyone using one of these on CW or remember how the correct procedure to go about setting it up ?

If I get it to go to xmit it will not drop out of xmit, or if receive can not get go into xmit... I tried to preset VOX gain fully clockwise and Anti vox fully counter clockwise. Then adjusted (reduced vox) to get it drop out. That is the way I would do it on SSB. controls inter react but must be some other proocedure for CW.

Thanks de stan ak0b

-----

Date: Mon, 12 Jan 1998 20:43:08 -0800  
From: Michael Hanz <AAFRadio@erols.com>  
To: kenc2@pacbell.net  
Cc: Old Tube Radios <boatanchors@sco.theporch.com>  
Subject: Re: ARC-5 Receiver Questions?  
Message-ID: <34BAF0DC.5947@erols.com>

Ken Corwin wrote:

> The run-of-the-mill LF/HF ARC-5 receivers with which most of us are  
> familiar have only one 12SF7, no 12SL7's, and a 12A6 with no internal  
> diode.  
> Would you be kind enough to describe the ARC-5 command receiver that you  
> just acquired?

It's an R-113/ARC-5, Ken. Frequency range is 125-156Mc. It's the higher freq companion of the R-112/ARC-5, which covered 100-125Mc. Gordon Eliot White had a brief mention of it in the October 1965 and March 1967 issues of CQ magazine, which is the only source of info I have on it at the moment. According to White, both of these receivers were evidently produced in low prototype quantities for military evaluation, but never bought for production because of the growing ground swell by 1944 for crystal controlled receivers. (I goofed on transcribing the date in my first query - the ARC stamp says 8/44, and the USN release date was 2/44, not 42.) It's almost identical to the later R-19 (ARC Type 12) VHF set that was clearly derived from it...except for the tube lineup, a direct reading frequency dial on the front panel like the normal ARC-5 and earlier ARC command receivers, plug-in 15Mc IF transformers, and SO-239 connectors in the top front panel corners. No BFO, strictly AM or MCW. The Y versions of the 12SF7 IF amps were apparently specified because of low loss micanol bases, which would be helpful at the 15Mc IF frequency. This particular unit, serial number 4, was actually overhauled at a Navy refurb facility - which apparently turned it into an R-19 for use out in the fleet! I cannot imagine such a bizarre thing happening, but the OH stamp is still readable on the tube cover. Anyway, that would explain the 1N34 diode connected to pin 6 of the A5023 socket - that pin is unused with the standard 12A6 which was in the socket.

I guess now I need to find the matching T-90 ARC-5 transmitter. Any out there? :-)

73,  
Mike Hanz KC4TOS  
Herndon, VA  
AAFRadio@erols.com

-----

Date: Mon, 12 Jan 1998 20:38:50 -0600 (CST)  
From: Spencer Petri <spetri@e-tex.com>  
To: boatanchors@theporch.com  
Subject: It Lives  
Message-ID: <199801130238.UAA08198@sco.theporch.com>

Hello Heavyweight Enthusiasts,

The Sylvania Electric, Polymeter, Type 134, that is. What a nifty old instrument. Contains a 7Y4, a 7A6, and two 7N7s. Works great after digging out the old Burgess +3 Volt battery, cleaning up the inside of the cabinet and replacing battery with two D cells and holder. Still looking for printed info.

I'm also QRV with a R-390A/DX-60/center fed Zepp/Johnson matchbox and have worked a few folk on several bands. Sounds like I'm chopping wood with the bug tho'.

Cleaned up the NC-303 today and took the cabinet to the car wash. After a little tuning she works FB. I think I even have some crystals for building up converters. About to dig out a Seneca and pair the two. Anyone work RS sats with a Seneca/NC-303? Hee, hee. Do the 00s listen there?

Would have been nice to have a 6 meter AM rig up and running last night as six was really jumping.

GL,

73 de Pete WA5JCI EM21 "the future will be better tomorrow"

.....  
6 Mtr -- WAS #490, WAC CW, DXCC/91 Countries, VUCC #361/626 Grids  
.....  
2 Mtr -- 36 States -- VUCC #346/183 Grids

-----  
Date: Mon, 12 Jan 1998 21:41:43 -0500 (EST)  
From: "Roberta J. Barmore" <rbarmore@indy.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Leeds 203A  
Message-ID: <Pine.SUN.3.96.980112211623.23583A-100000@indy2>



Hi, Gang!

Found it--only 3 or 4 strata down on the desk, in the urgeolithic\* region: "96/97 World Tube Directory," pg 29: "LEEDS" vertically, with "tubes sockets transformers chokes," "variatics switches miscellaneous," "15 mintues by subway from downtown Manhattan," "68 North 7th Street Brooklyn, NY 11211, 718.963.1764 718.963.1963 Fax" horizontally in groups.

Wanna bet it's some survival of the old Leeds? Wanna bet despite the hi-falutin' low-key tres' classy hah-figh ad layout the actual place is a bit of a splendid hoorah's nest? (Sadly, it looks like they've dropped the fine old Leeds logo).

...Would anyone know? Don't 'spose there'd be an actual inhabitant of that general locale on the list to go have a look...? 'Swelp me, if they've still got crystalline paint and sheet Bakelite, I'll buy whoever finds it out a beverage of choice (lay off them fancy vintages, though!)

73,  
--Bobbi

(Forsooth, the World Tube Directory is not a bad sourcebook--some unobtainium, some overpriced, nickle-plate hooley [a few ads, you'd best have boots on!], but mostly just interesting outfits that sell interesting stuff. Oh, the amplifierage is overpriced and hyped--but have ya looked at any mainline ham xcvr ads lately? Ahem).

-----  
\* "urgeolithic region:" depending on the degree of scholarship you like, it's either crummy New Latin for "really old world stone," or it's where you have dig so deep to find stuff, you are overwhelmed by the urge to go throw rocks.

(Civil engineers, please note I have experimentally determined the angle of repose of loose paper to two decimal places!)

-----  
Date: Mon, 12 Jan 1998 22:11:43 -0500 (EST)  
From: William Donzelli <william@ans.net>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Leeds 203A  
Message-ID: <Pine.GS0.3.96.980112220911.28945B-100000@titan.purch.ans.net>

> ...Would anyone know? Don't 'spose there'd be an actual inhabitant of  
> that general locale on the list to go have a look...? 'Swelp me, if  
> they've still got crystalline paint and sheet Bakelite, I'll buy whoever

> finds it out a beverage of choice (lay off them fancy vintages, though!)

Well, as the proud owner of the Leeds 203A \_AND\_ living in the general area, I suppose it is my job. Maybe I should take the critter with me and ask if they have any more.

William Donzelli  
william@ans.net

-----  
Date: Tue, 13 Jan 1998 03:44:57 +0000  
From: Sandy W5TVW <ebjr@worldnet.att.net>  
To: boatanchors@theporch.com, glowbugs@www.atl.org  
Subject: Trade/Buy??  
Message-ID: <19980113034454.AAA17101@LOCALNAME>

Time to "try again"!

Looking for two to four NOS VT-224 or 2C34 or RK-34 dual triodes. Also looking for one or two NOS 10Y triodes. Have for trade others. What are you looking for?

73,

E. V. Sandy Blaize, W5TVW

"Boat Anchors collected, restored, repaired, traded and used!"

417 Ridgewood Drive

Metairie, LA., 70001

\*\*860 Hartley 'ECO' construction "on hold"\*\*\*  
\*\*\* Looking for a TRC-10 transceiver \*\*\*\*\*  
\*\*\* Looking for an RAL receiver \*\*\*\*\*

-----  
Date: Mon, 12 Jan 1998 22:40:27 EST  
From: Ho4bart <Ho4bart@aol.com>  
To: boatanchors@sco.theporch.com  
Subject: Fw: Aspects of German Construction Technology  
Message-ID: <23d99aa9.34bae22c@aol.com>

i have an article on the by A. Bauer of the Netherlands, i will forward it to anyone interested. too long to post here and not quite enuff on theme.  
hue

Date: Mon, 12 Jan 1998 20:38:28 -0800  
From: Hal Waite <halwaite@sprintmail.com>  
To: Boatanchors <boatanchors@theporch.com>  
Subject: Wanted: Information on the National NCX-1000  
Message-ID: <34BAEFC4.569A@sprintmail.com>

I would like to know the member's experience with this transceiver. Seems to be functionally similiar to my Hallicrafters SR-2000 which also uses the hard-to-find 8122. This, however, is all solid state except for the driver and finals.

I have the NCL-2000 which is an excellent amplifier and drives easily, being passive grid, but runs hot enough to fry an egg on the transformer. I suppose that the receiver is somewhat like the lower-powered transceivers produced at that time by National.

Thanks in advance.

Hal K3AB/7 Las Vegas

-----  
Date: Mon, 12 Jan 1998 21:12:07 -0800 (PST)  
From: Ken Gordon <keng@uidaho.edu>  
To: "A. B. Bonds" <ab@VUSE.VANDERBILT.EDU>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: Re: Transformer hum?  
Message-ID: <Pine.BSF.3.95.980112211047.29366C-100000@piobaire.mines.uidaho.edu>

> (1) The audio output transformer sits about an inch away from the  
> power xfrm'r. I get a very audible hum the instant I turn the set on  
> (before tubes warm). I loosened the audio xfrm'r mount and moved it  
> away from the chassis, the hum reduced. It seems the power  
> transformer is leaking a fair 60 Hz field that gets picked up by the  
> audio xfrm'r. Is this kind of leakage expected from any transformer,  
> or does it vary? The replacement unit does have a steel shell.

I am not sure, but it seems to me that that situation demands a grounded COPPER band around the power transformer laminations.

Ken W7EKB

-----  
Date: Mon, 12 Jan 1998 21:12:51 -0800  
From: Edward Zeranski <ejz@nosc.mil>

To: NBroline <NBroline@aol.com>  
Cc: boatanchors@theporch.com  
Subject: Re: TCS Help  
Message-ID: <3.0.1.32.19980112211251.006f340c@marlin.nosc.mil>

At 11:57 PM 1/11/98 EST, you wrote:

>Hi, Ed,

>

>It looks like I'm about to get involved with the TCS business.

>

Nick,

Good deal on TCS! I can put the schemos in the mail with other info. Have not thought about the higher TX voltages, will look at the components supporting the tubes and the tube specs. But...

The pwr supplies, no matter which, supply 225v and fils to RX/TX with 400v to TX keyed up. Your AC supply(90 lb hernia machine???) will fit right in like a dynamotor/MG unit. If you have the cable for the pwr supply/TX connection you should be able to run the TX from local position or remote if you have the rmt box and cable. There is a TX-on function and relay volts supply in your pwr supply too.

As above, am glad to supply xeroxes of schemos, pinouts, wiring diags etc. no sweat. Other BA folk to talk to on subject of TCS, and any subject is a pleasure, are Ray Mote, Robert Downs, and Steve Finelli. Believe Dave Stinson has a couple too as well as Jay Coward. Will burn the pertinent copies then pass 'em on. I'll be home until Thurs. this week then its road time until sometime in Feb. Email is OK as long as I'm in the States but real iffy after that. When you get the stuff let me know if there is a further need. Good luck with the TCS they are tough little radios.

-----  
Date: Mon, 12 Jan 1998 22:22:30 -0800  
From: Edward Zeranski <ejz@nosc.mil>  
To: boatanchors@theporch.com  
Subject: BigWillie 5100  
Message-ID: <3.0.1.32.19980112222230.006df79c@marlin.nosc.mil>

As if I needed more stuff to feel guilty about I just adopted a B&W 5100(no suffix). Not totally innocent of course, I was swayed by good reports from BA folk, and the price was nil. Hell, that thing at anything per pound was cheap!(Big stuff in there) Attacked it for a bit this afternoon after work with schemo and Simpson to find the 50w 20K R49 missing and replaced by a homebrew R network under and to stbd of the RF

section. Yes I know, the work of perverts. Also, the same villian made off with the lowpass filter. As soon as the creep has been located I'll dispatch my Tom cat to do what he does best. The filter can be taken care of but does anyone have said resistor with slithery taps? While it may work, kinda, I'd really like to replace the cluster o'carbon. There is other stuff in the que so its not a rush. Was also told there was a SSB adapter for approx \$35, any experience with these?? Will be on the road but thanks for any input.

Ed Zeranski This is a private opinion or statement.  
home email: ezeran@cris.com

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End of BOATANCHORS Digest 1876

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>From ???@??? Wed Jan 14 02:45:24 1998  
Message-Id: <199801132321.RAA06146@sco.theporch.com>  
Date: Tue, 13 Jan 1998 17:21:59 CST  
Subject: BOATANCHORS digest 1877

BOATANCHORS Digest 1877

Topics covered in this issue include:

- 1) free stuff...  
by Jeffrey Herman <jeffreyh@hawaii.edu>
- 2) ME-26D/U VTVM comments  
by "JOSE V.GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>
- 3) fao Bob Roehrig  
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
- 4) 274N/ARC5s still flying in 60s?  
by polepeeg@aa4rm.radio.org (BA x-actions hr)
- 5) Paint Stripping Help  
by RSOLOMON@systems.TEXTRON.COM
- 6) Re: Trade/Buy??  
by Jim Waits <jimwaits@emcst.com>
- 7) RE: ME-26D/U VTVM comments  
by "L. Mark Pilant - MS:ZK03-4/Y02 DTN:264-1529" <pilant@seesaw.ENET.dec.com>
- 8) Antenna vs. Aerial

by jcreid@CCGATE.HAC.COM

- 9) 100% Mod'd AM KW - 1500w PEP out controversy  
by polepeeg@aa4rm.radio.org (BA x-actions hr)
- 10) Mercury Warning...  
by Jack Harper <jharper@bs2000.com>
- 11) Test . dont read  
by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
- 12) Re: Test . dont read  
by "Ragnar Otterstad" <danmec@inet.uni-c.dk>
- 13) Angry-9 and Bendix TA12: Question relay.....  
by john <johnmb@mindspring.com>
- 14) CWEST Tube URL??  
by "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>
- 15) HP524D For Sale  
by Jim Hill <jshillw6ivw@earthlink.net>
- 16) Kay 154C Manual Wanted  
by Jim Hill <jshillw6ivw@earthlink.net>
- 17) RE: 100% Mod'd AM KW - 1500w PEP out controversy  
by Ed Sieb <esieb@gmsiworld.com>
- 18) 32V-1 no workie  
by Laird Tom N <LairdTomN@JDCORP.deere.com>
- 19) RE: 100% Mod'd ...blah...ultramodulation  
by polepeeg@aa4rm.radio.org (BA x-actions hr)
- 20) BA site of interest, UK  
by BEN NOCK <G4BXD@compuserve.com>
- 21) Hall S38 knob wanted  
by BEN NOCK <G4BXD@compuserve.com>
- 22) RE: 100% Mod'd ...blah...ultramodulation  
by "Roberta J. Barmore" <rbarmore@indy.net>
- 23) WTB- Knight Span Master II  
by Nick England <nick@cs.unc.edu>
- 24) Re: Mercury Warning...  
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
- 25) Thank's for Help with HQ-170A...  
by Jack Harper <jharper@bs2000.com>
- 26) Re: 100% Mod'd AM KW - 1500w PEP out controversy  
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
- 27) Re: Antenna vs. Aerial  
by Bill Jarvis <B.H.Jarvis@hw.ac.uk>
- 28) RAO-7 info needed  
by w1nml@juno.com (Lock Pingree)

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Date: Mon, 12 Jan 1998 20:40:33 -1000  
From: Jeffrey Herman <jeffreyh@hawaii.edu>  
To: Boatanchors List <boatanchors@sco.theporch.com>  
Subject: free stuff...

Message-ID: <Pine.GS0.3.95q.980112203228.7370A-100000@uhunix5>

...for shipping, of course!

"Callins 54,000uF 20VDC" capacitor (big)

"Mallory 10,000MFD 50VDC" capacitor (bigger)

21-step stepping relay (8P21T); unknown voltage necessary to actuate

Been using 'em all as paper weights...

73, Jeff KH2PZ / KH6 (back home: temps 60 at night, 80 during day)

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Date: Tue, 13 Jan 1998 10:00:13 +0100

From: "JOSE V.GAVILA (EB5AGV/EC5AAU)" <eb5agv@ctv.es>

To: "Boatanchors List" <boatanchors@sco.theporch.com>

Subject: ME-26D/U VTVM comments

Message-ID: <3.0.1.32.19980113100013.006cfd10@192.168.0.1>

Hi gang!

Yesterday, after a looooooong ONE YEAR delay (yes, 1 year... I paid for this unit in january 1997 :-( ), I received an ME-26D/U VTVM. In the metal label is written 'Sentinel Electronics ME-26D/U S/N 3207' along with the usual contract data. Some trivia: the last calibration tag is from 24 May 1989. And a label hanging from the case says 'calibrate before use'. So I suspect VAC accuracy won't be at its best ;-)!.

It was somewhat dirty but, after a complete 3 hour in and out cleaning work, it is now about an 8+ cosmetically, with some scratches in the cabinet (but not in the front panel). Well, once cleaned, I connected it for the smoke test (I had previously done a visual inspection and a preliminary electrolytic check). After the warm up, I was able to adjust the zero and infinite controls, and measure Ohms and VDC, with surprisingly good accuracy (using as an standard to compare my trusty Fluke-77 II). About VAC, putting my finger in the probe I got reading so, at least, the diode works. I had no time to check more on VAC, as I was more interested in comparing the ME-26 with the HP-410B... First question: I think the ME-26 is the military version of the HP-410B... If this is true, apart of the obvious physical differences, are there any electrical differences?. I have observed one thing I don't like in my ME-26: the meter neddle jumps too fast!. So fast that I'm worried about its lifetime... I suspect some kind of capacitor which should soften the neddle movement is bad. Any idea about this?.

Only item missing from my ME-26 is the AC probe tip; just the small

'screw-neddle' which should be in the tip... Is there any spare around or any idea to make a replacement?. I don't like the idea of soldering anything there.

And what about the 6-4 ballast tube?. Now I have two meters which use it and any spare... Are these tubes hard to find?. Any hidden in your tube box ;-)?.

I have a manual on its way to my home (thanks Herb!), but I would like to get before an scanned schematic to compare with the HP-410B, as the manual will come to Spain by surface mail, along with other related BA books, so it will take about 2 months to arrive... By the way, I can supply a 300x300dpi scanned HP-410B schematic, if somebody needs it.

Well, that's all for now!.

Thanks for your help.

Best regards.

JOSE

-----  
73 EB5AGV / EC5AAU  
JOSE V. GAVILA  
Ausias March 46, 15  
46910 Benetusser - VALENCIA  
SPAIN

<http://www.geocities.com/SiliconValley/6992/>  
e-mail: eb5agv@ctv.es & eb5agv@amsat.org

-----  
Date: Tue, 13 Jan 1998 09:13:04 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: boatanchors <boatanchors@theporch.com>  
Subject: fao Bob Roehrig  
Message-ID: <199801130913.JAA08217@punt1.hw.ac.uk>

Tubes arrived - pse remind me your private email so I can thank properly! Thanks for bandwidth...  
Bill

Net-Tamer V 1.10 - Registered



-----  
Date: Tue, 13 Jan 1998 07:11:32 -0500  
From: polepeeg@aa4rm.radio.org (BA x-actions hr)  
To: boatanchors@theporch.com  
Subject: 274N/ARC5s still flying in 60s?  
Message-ID: <199801131211.HAA12341@aa4rm>

I've got a pal's BC454 hr that has a switching PS on it!!!

Made by SunAir in Ft. Lauderdale & has 2 doorknob PNPs. It soldered onto dyno socket & mounted inside upper housing like the dyno.

Imagine flying the Orinoco River in a C54 full 'o dozer parts & listening to 75m AM fm the states in '63!

Someone shure as he!! did.

Anyone else discover one?

M

-----  
Date: Tue, 13 Jan 1998 07:50:09 -0500  
From: RSOLOMON@systems.TEXTRON.COM  
To: " " (052)boatanchors(a)sco.theporch.com"  
<boatanchors@sco.theporch.com>  
Subject: Paint Stripping Help  
Message-ID: <00341000021322260000002L062\*@MHS>

I have a nice old Bird Dummy Load/Wattmeter that I just received. The meter case is pretty badly dinged up and needs to be re-painted. Sanding seems too much, the paint looks fairly thick, so I thought of using a paint stripper. But the meter case is an Aluminum casting (I think) and I wonder if the paint stripper would damage the Aliminum. Any thoughts ? other ideas ? Your input would be appreciated.

Thanks, Dick, W1KSZ  
rsolomon@systems.textron.com

ps: Pse include e-mail address in any reply. My company has e-mail set so I cannot tell who sends it only the originating reflector address !!



-----  
Date: Tue, 13 Jan 98 09:12:43 EST  
From: "L. Mark Pilant - MS:ZK03-4/Y02 DTN:264-1529" <pilant@seesaw.ENABLE.dec.com>  
To: boatanchors@theporch.com  
Cc: pilant@seesaw.ENABLE.dec.com  
Subject: RE: ME-26D/U VTVM comments  
Message-ID: <9801131412.AA21378@us2rmc.zko.dec.com>

>From memory, since I sold both my ME-26B and HP-410B a while back, the ME-26A IS a relabeled HP-410B. The ME-26B through -26D are variations on the same theme. The same basic circuitry using some different components (i.e., the front panel meter).

I got a "partial" manual copy from Fair Radio, and it contained all the various schematics.

73

- Mark N1VQW

-----  
Date: Tue, 13 Jan 98 06:48:37 PST8  
From: jcreid@CCGATE.HAC.COM  
To: boatanchors@sco.theporch.com  
Subject: Antenna vs. Aerial  
Message-ID: <9800138847.AA884702964@CCGATE.HAC.COM>

Greetings all and happy new year!

I was flipping through my recently acquired Audel's New Radioman's Guide and came across the chapter on Antenna Systems. I remember awhile back there was a thread running about when the word aerial was determined archaic and the term antenna was used. I don't want to start the thread back up since it is a bit off topic, but here's what Audel had to say about it in 1942 and I quote:

The term "Aerial" generally is applied to that portion of the antenna which is elevated or the flat top portion and the term "lead in" applies to the connection between the aerial and the receiver. The antenna constitutes the combination of the aerial and the lead in.

So there you have it. Believe it or don't.

-Jim N6SVS  
jcreid@ccgate.hac.com

-----  
Date: Tue, 13 Jan 1998 09:55:41 -0500  
From: polepeeg@aa4rm.radio.org (BA x-actions hr)  
To: boatanchors@theporch.com  
Cc: BOB2430@aol.com, CEMILTON@aol.com,  
JTHanlo@sandia.gov.modsteph@acs.eku.edu.bob@atl.org, smart@AMERICA.NET,  
Subject: 100% Mod'd AM KW - 1500w PEP out controversy  
Message-ID: <199801131455.JAA12632@aa4rm>

Measuring AM PEP output is a controversy that won't die.

I published on that 18 mo.s ago doing the integral calculus time-averages in overview and offering the derivations via US mail to a couple of takers.

Pointy-headed-ness.

Well controversy's locally baaack & lo & behold I just rediscovered a W4CJL Hoisy mailing fm 11/96. He included a 1990 SPAM newsletter art'l on using a Kenwood PEP meter with a Johnston desk KW "talked up" to 100% mod... and only measuring 1.5kw out, not 3kw (4kw-in x 75% efficiency)

Using & confusing single-sinusoid RMS power with peak power, the author performed a cock-eyed derivation and said FCC had dropped trou(sers)

Derivation wrong, conclusion right.

So all this time has passed & yesterday I thot up the following no-math plausibility argument as to why.

A single-tone SSB sig is really carrier (suppressed) + audio freq. for USB. One spectral line, a single sinusoid where  $V_{rms} = .707 \times V_{peak}$ . &  $P_{rms} = .5 \times P_{peak}$ .

But on AM there's 2 sidebands & the carrier - 3 spectral lines. If you take a mod. freq. that's, say, .001 x the carrier freq. (3kc audio, 3mcs carrier) you'll only get audio peaks to line up with RF peaks every 1000 RF cycles - not on every one as in the USB example above.

In other words, there are those "4kw input instances," but they're a one event in a 1000 occurrence & not an every-cycle happening.

And that's what discombobbles the peak reading Kenwood meter. The 1500w you're pouring in oughta show 1200w @ 75% efficiency. But those odd audio & RF peak or coincidences and near-coincidences kick it up 20% - not 150% as many guess.

And this stuff post-dates Terman & isn't in any of those '39 tomes.

Now how you do an "integral average" to compute average power... and this is probably in Terman - since it's much easier than Maxwell's eqn.s

A year ago I did the math here in overview & mailed a few parties the derivation. It was integration over 1 complete audio cycle that contained an integral number of RF cycles (like above). This enabled a lot of trig cross-products to cancel & the thing came out on one page.

The result that for a kw-in & .5kw modulation, you have 250w-in info on avg.\* in each sideband & the kw (in) still in the carrier. Makes that Johnston desk a weak info-exchange sister to even a Drake TR4.

But AM's got bass that SSB doesn't & if components and operating points are picked OK - anyone can sound like Dr. Johnny Fever on their Viking II at 30w in with response pre/de-emphasized to get low distortion response down to 100hz.\*\* However only those SX25s & SX28s (& Bretings) w. p-p audio can do it any repro justice... unless you come outa a R388 / R390 diode load jack thru a (say) 1N34 into a hifi.

But all that black crackle, galvanized steel, hot glass, et. al. sure looks great & you can see the parts you're 'doin of mis-'doin.

And in closing... your average FCC inspector lad won't know any of this hoo-ha so one could say - keep the KWs RUNNING FULL STRAPPP and thumb your nose at the regulators!

Incendiarily Yours,

Marty

\* same math oughta exactly show the "1500w phenomena," but I haven't gone back & looked.

\*\* or use a PWM foundation chip for a switching PS with the right in & out filters & a opto-isolated HV switch - I may publish on this / no mod xfrm, teeny parts count, GREAT BASS & verry low distortion!

But carrier's gotta be throttled back to 25% usual out to hit 100% mod.

Ahhh yes - the good news, the bad news. Trade-offs.

-----

Date: Tue, 13 Jan 1998 07:41:18 -0700  
From: Jack Harper <jharper@bs2000.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Mercury Warning...  
Message-ID: <3.0.1.32.19980113074118.0078fd7c@teal.csn.net>

Greetings all...

There have been several discussions regarding mercury on the BA List over the past year or so.

The following illustrates the general level of hysteria that can erupt and rapidly get out of control if any of the evil substance is discovered by the authorities to exist -- I would not be at all surprised if you ended up being booted out of your house and all of your property carted off to the local Hazmat facility if you dropped a mercury vapor rectifier...

>  
> Teen-agers steal mercury, a county deals with contamination  
>  
>  
> Jan. 10 1998 2:40 p.m. EST  
>  
>TEXARKANA, Ark. (AP) -- A simple break-in at an abandoned neon plant has  
>set this city on edge. What was stolen was mercury, a poison that's now  
>popping up all over the place.  
>  
> More than four dozen people may have been exposed to dangerous levels of  
>the element, and two needed emergency treatment. Seven homes have been  
>evacuated, their contents carted off in plastic bags to a decontamination  
>center.  
>  
> Part of a junior high school was sealed off Friday when mercury was found  
>on a science room floor.  
>  
> ``Every day we turn up more,''' said Dave Hall, Texarkana's emergency  
>services coordinator.  
>  
<snip>  
>  
> A vial of mercury carried by a teen-ager broke inside a combination grocery  
> store-sandwich shop last week. Emergency workers found out Thursday and  
>closed the store.  
>  
> City emergency workers on Friday confiscated two pairs of shoes from  
>students at College Hill Junior High that were contaminated with mercury.  
>They sealed off the room and part of a hallway.

>  
<snip>  
>  
> Copyright C 1997 Associated Press. All rights reserved.  
>

I have heavily Snipped the release to keep the size down -- let me know if you would like the full text.

Regards

Jack, W0YJ (Friend to all things Hammarlund)

-----  
Jack Harper  
303-277-1892

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Golden, Colorado USA

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-----

-----  
Date: Tue, 13 Jan 1998 16:55:40 +0100  
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>  
To: "boatanchors" <boatanchors@theporch.com>  
Subject: Test . dont read  
Message-ID: <199801131554.QAA27821@hertz.uni2.dk>

testing

-----  
Date: Tue, 13 Jan 1998 16:56:57 +0100  
From: "Ragnar Otterstad" <danmec@inet.uni-c.dk>  
To: "Ragnar Otterstad" <danmec@inet.uni-c.dk>,  
"boatanchors" <boatanchors@theporch.com>  
Subject: Re: Test . dont read  
Message-ID: <199801131554.QAA28036@hertz.uni2.dk>

-----  
> From: Ragnar Otterstad <danmec@inet.uni-c.dk>  
> To: boatanchors <boatanchors@theporch.com>  
> Subject: Test . dont read

> Date: 13. januar 1998 16:55  
>  
> testing

-----  
Date: Tue, 13 Jan 1998 10:59:45 -0500  
From: john <johnmb@mindspring.com>  
To: boatanchors@theporch.com  
Subject: Angry-9 and Bendix TA12: Question relay.....  
Message-ID: <199801131559.KAA16097@camel14.mindspring.com>

I received the following request for help, and with the authors permission, am passing it to the group for their possible assistance.

Thanks very much  
/John

>Return-Path: <daveb@ihr.mrc.ac.uk>  
>Date: Tue, 13 Jan 1998 08:44:36 +0000  
>From: Dave Bullock <daveb@ihr.mrc.ac.uk>  
>Organization: MRC Institute of Hearing Research  
>To: johnmb@mindspring.com  
>Subject: Angry-9 and Bendix TA12  
>  
>Hi John,  
>I hope you will not mind me mailing you but I am trying to find a  
>source of power plugs for a GRC-9 transmitter and a Bendix TA12  
>transmitter. I am trying to get them going especially the TA12 which  
>is a true boatanchor and absolutely gorgeous inside!!  
>Please help if you can...  
>Thanks Dave Bullock G6UW0  
>daveb@ihr.mrc.ac.uk  
>

-----  
Date: Tue, 13 Jan 1998 10:52:53 -0600  
From: "Freeberg, Scott (STP)" <scott.freeberg@guidant.com>  
To: "'Boatanchors@theporch'" <boatanchors@sco.theporch.com>  
Subject: CWEST Tube URL??  
Message-ID: <21B46CBD022AD1118F0500805F15A0681ED282@STPMSX05.stp.guidant.com>

Did CWEST Tube Sales change their URL? The address I have is  
[http://members.iex.net/~dfrancis/CWest\\_Tube\\_Sales.html](http://members.iex.net/~dfrancis/CWest_Tube_Sales.html) but this no



longer works.

Thanks,

Scott WA9WFA Saint Paul Minn  
scott.freeberg@guidant.com

-----  
Date: Tue, 13 Jan 1998 09:22:43 -0800  
From: Jim Hill <jshillw6ivw@earthlink.net>  
To: boatanchors@theporch.com  
Subject: HP524D For Sale  
Message-ID: <3.0.3.32.19980113092243.006efb80@earthlink.net>

Anyone interested in a HP 524D 10 MHz counter for \$10 OBO?  
The chassis is clean, the case dingy, and it doesn't work.  
In size, weight, and age, it is a true boatanchor. I think  
it was the first high performance 10 MHz counter made. You  
will definitely have a lifetime supply of twin triodes.

You pickup, or I'll deliver a short distance. I live in the  
Los Angeles area, near Torrance. I occasionally go to places  
near San Francisco, and could take it with me.

-----  
Date: Tue, 13 Jan 1998 09:30:25 -0800  
From: Jim Hill <jshillw6ivw@earthlink.net>  
To: boatanchors@theporch.com  
Subject: Kay 154C Manual Wanted  
Message-ID: <3.0.3.32.19980113093025.006efb80@earthlink.net>

I'm really need a Kay 154C Mega-Sweep manual. The unit is  
a sweeping oscillator/signal generator that covers MF/HF  
instead of VHF, like most sweepers. I'll trade good money  
or a copy of one of my military manuals for the original  
or a copy.

Thanks, Jim

-----  
Date: Tue, 13 Jan 1998 13:16:32 -0500  
From: Ed Sieb <esieb@gmsiworld.com>  
To: Old Tube Radios <boatanchors@theporch.com>,

""BA x-actions hr""

Subject: RE: 100% Mod'd AM KW - 1500w PEP out controversy

Message-ID: <01BD2025.7861DC40@dstephen.gmsiworld.com>

So, just to make it \_real\_ simple (hah!), is there a quick, simple rule-of-thumb one can use to calculate PEP from a given "RMS" output?

And what effect would "Ultra-Modulation" or greater than 1:1 ratio of mod. power/ carrier power have?

Ed, VA3ES

-----

Date: Tue, 13 Jan 1998 12:45:29 -0600

From: Laird Tom N <LairdTomN@JDCORP.deere.com>

To: ""BA"" <boatanchors@theporch.com>

Subject: 32V-1 no workie

Message-ID: <0958DD57326BD011813300805FBE98DA0263646A@e90corp2.dx.deere.com>

I'm working on a Collins 32V-1 for a friend and the unit has low voltage, but won't TX when the High Voltage switch is turned on (mode switch in Phone). I think I have traced the problem to the relay resistor voltage divider pair(R-309 and R310), they both appear to be open. While I'm waiting to get these 10 watters delivered, is there any words of wisdom as to why they both went?

Tom Laird WC9M

looking for SX-115 and R-4B

Deere & Company

LairdTomN@JDCorp.deere.com

-----

Date: Tue, 13 Jan 1998 14:20:14 -0500

From: polepeeg@aa4rm.radio.org (BA x-actions hr)

To: boatanchors@theporch.com, esieb@gmsiworld.com

Subject: RE: 100% Mod'd ...blah...ultramodulation

Message-ID: <199801131920.0AA13245@aa4rm>

Ed that stuff with it's lopsided sine wavbes (huge positive, 'regulation negative') requires a Fourier series with a bunch of lower

order harmonics to model it.

You cud LP filter to get 'em but you'd just eat up the extra power.

The math for the avg. energy distribution wud be tedious but closed-form possible.

BC stations used 20% assymetry 'ultra' for awhile 'til some fed arithmetic mogul noted the above and/or it was verified with rx-based harmonic analysis.

>From the mathy view, ultra mod is junk. However I think it's a fair 'band citizen' since most of the doo-dah is at 2x, 3x, 4x, etc. the carrier freq. & shudn't splatter if neg. cut-off is avoided.

Now I admit this is a JMHO since I've never putzed with the stuff but base this on conversations with degreed (eeeehhhh-oohhh-eeee) engineers & mr. Fourer & mr transform.

Marty

-----  
Date: Tue, 13 Jan 1998 14:35:43 -0500  
From: BEN NOCK <G4BXD@compuserve.com>  
To: Multiple recipients of l <boatanchors@sco.theporch.com>  
Subject: BA site of interest, UK  
Message-ID: <199801131436\_MC2-2F2C-96CA@compuserve.com>

If anyone is visiting London then go take a look =

at the HMS Belfast museum, moored on the Thames by Tower Bridge.

Its a 11.5k ton Crusier of WWII vintage which you can roam all over, =

mind your head though as the stairways are tight in some places. =

Its radio room is fitted with sets of the period  
as well as other radio and radar related items all over.

Well worth a visit.

Ben G4BXD.

-----  
Date: Tue, 13 Jan 1998 14:35:44 -0500

From: BEN NOCK <G4BXD@compuserve.com>  
To: Multiple recipients of 1 <boatanchors@sco.theporch.com>  
Subject: Hall S38 knob wanted  
Message-ID: <199801131436\_MC2-2F2C-96CB@compuserve.com>

I am in need of the tuning knob of an S38 rx. Indeed, though =  
this set only has the one missing, I have another 38 that has knobs, but =  
not the right ones. =

So, in the first instance I need A knob, but.... if anyone has 3 then  
that would be even better. =

cheers, Ben G4BXD

-----  
Date: Tue, 13 Jan 1998 16:53:55 -0500 (EST)  
From: "Roberta J. Barmore" <rbarmore@indy.net>  
To: BA x-actions hr <polepeeg@aa4rm.radio.org>  
Cc: Old Tube Radios <boatanchors@theporch.com>  
Subject: RE: 100% Mod'd ...blah...ultramodulation  
Message-ID: <Pine.SUN.3.96.980113163640.9198B-1000000@indy3>

Hi!

Oh, dear, ultramodulation.... Back in the fine old days of no spectral  
mask for AM BC and plenty of big fun, we could run up to 25% positive  
asymmetry: 100% neg mod, 125% pos mod, and be legal as church on Sunday.  
Trouble is, such deliberate asymmetry is indistinguishable from harmonic  
distortion. Not just mathematically, but measureably so and even by ear  
if you pushed it enough!

So the smart money paid attention to absolute phase through the audio &  
RF system; the human voice & some instruments are inherently  
asymmetrical. You set up the processing to limit at just below 125% pos  
and 100% neg, and let the naturally-occurring asymmetries slip through.  
But you didn't go too far out of your way to add in what was not there to  
start with. (Rock and Roll stations are a whole other story, illustrated  
by a Chicago DJ's warning at the time: "If you go to buy a used car and  
the radio buttons are set to the Top 40 stations, pass it by--the  
transmission is probably shot!" It was all pure "Tool Time," from the  
processing to the DJ's chatter to the listeners themselves: MORE POWER!  
Arrgh. Let's not invent a ham radio edition of that--I like to take  
longer than ten seconds to talk about the weather!) (Just tried--still

can, and get the call letters in, too. A horrid skill).

For a ham version, all you need is a 'scope and a sample of the RF. Look at the output of the mic preamp whilst trying vocal sounds to find one that looks "lopsided;" then look at the transmitted envelope while making the same sound and see if it's lopsided with the big side of the lopsidedness heading up. If it ain't, add an inverting amp or flip a transformer winding to make it that way. (Trickier in practice, you can run outta headroom any place along the line, but this is a starting point). Umm, might be wise to try the random talking & burbling in search of asymmetry into a dummy load, lest others on the band assume it it time to send you away...!

73,  
--Bobbi

-----  
Date: Tue, 13 Jan 1998 17:48:18 -0500 (EST)  
From: Nick England <nick@cs.unc.edu>  
To: boatanchors@theporch.com  
Subject: WTB- Knight Span Master II  
Message-ID: <199801132248.RAA11880@altair.cs.unc.edu>

I'm looking for a Knight-kit SpanMaster II. This is the 1970 version with a single vernier dial, superhet with BFO. Black & aluminum front panel in a gray crackle cabinet. 4 bands, 4 tubes plus rectifier.

See 1970 Allied Radio catalog page 496 -  
It seems similar to the Hallicrafters S-119 SkyBuddy II.

Will pay cash or trade vintage gear. If you come across one at a hamfest please keep me in mind.

I haven't ever seen one of these Japanese Knight-kits - has anyone got one ??

73 from a knight-nut,  
Nick KD4CPL

-----  
Nick England KD4CPL nick@cs.unc.edu Univ. Of North Carolina  
http://www.cs.unc.edu/~nick Chapel Hill NC

-----  
Date: Tue, 13 Jan 1998 19:52:48 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: jharper <jharper@bs2000.com>  
Cc: boatanchors <boatanchors@theporch.com>  
Subject: Re: Mercury Warning...  
Message-ID: <199801131952.TAA21195@punt1.hw.ac.uk>

On 1998-01-13 jharper@bs2000.com said:

jh>Greetings all...

jh>There have been several discussions regarding mercury on the BA

jh>List over the past year or so.

jh>The following illustrates the general level of hysteria that can

jh>erupt and rapidly get out of control if any of the evil substance

About 5 years ago in Tottenham, a suburb of London, a retired Physics teacher was going through his attic and came across a chemistry beam balance. He knew these are now collector's items so he took it downstairs to clean up, along with a couple of boxes of known masses, and specimen metals for demonstrating the meaning of density.

The metal specimens were in the form of rods, about 25 mm long and 8 mm diameter.

They were engraved with the name of the metal.

The heaviest was engraved "Uranium".

Knowing it to be harmless, he nevertheless decided to ask the local authority the correct procedure for disposing of it, or getting it to a school where it would be useful.

Within 2 hours of telephoning for advice, he found his street and the adjoining street cordoned off, traffic stopped, and the residents being herded out pending a sweep by specialists for traces of radioactivity.

Of course, the specialists found a number of smoke alarms, and a few old watches, clocks, and Boatanchor meters with luminous dials. And the uranium rod. Nothing else.

This sort of hysteria stems from the tendency to demand compensation if anyone makes a tiny mistake; and for officials to go to any lengths to make sure they cannot be blamed for anything.

It causes massive delay and expenditure in public services, especially medicine and health.

It also often results in the less scrupulous business winning the contract.

Oops - sorry - he's digressing again, Nurse!

Bill

GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Possunt quia posse videntur

Net-Tamer V 1.10 - Registered

-----  
Date: Tue, 13 Jan 1998 12:59:22 -0700  
From: Jack Harper <jharper@bs2000.com>  
To: Old Tube Radios <boatanchors@theporch.com>  
Subject: Thank's for Help with HQ-170A...  
Message-ID: <3.0.1.32.19980113125922.00789bc8@teal.csn.net>

I send sincere Thank You's to everyone that offered advice and counsel regarding repairing the broken Antenna Tuning capacitor on the HQ-170A that I am going through...

Jon Schmidt, WD8JSA, actually sent an exact replacement Hammarlund variable -- so, I don't have to try to glue the old one back together.

Thanks Jon -- This BA List is the greatest!

Regards to all...

Jack, W0YJ (Friend to all things Hammarlund)

-----  
Jack Harper  
303-277-1892

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-----  
Date: Tue, 13 Jan 1998 19:52:59 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: esieb <esieb@gmsiworld.com>  
Cc: boatanchors <boatanchors@theporch.com>  
Subject: Re: 100% Mod'd AM KW - 1500w PEP out controversy  
Message-ID: <199801131952.TAA21203@punt1.hw.ac.uk>

On 1998-01-13 esieb@gmsiworld.com said:  
es>X-Listprocessor-Version: 8.1 -- ListProcessor(tm) by CREN  
es>Status:  
es>So, just to make it real simple (hah!), is there a quick, simple  
es>rule-of-thumb one can use to calculate PEP from a given "RMS" And

Wouldn't it depend on who is speaking and how? A football commentator  
would notch up a greater factor than a nonagenarian on a Sunday morning.  
In other words you would need a standard "Mark-space" ratio for speech!  
Has that ever been done?

Bill  
GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Si vales, bene est

Net-Tamer V 1.10 - Registered

-----  
Date: Tue, 13 Jan 1998 19:52:54 +2400  
From: Bill Jarvis <B.H.Jarvis@hw.ac.uk>  
To: jcreid <jcreid@CCGATE.HAC.COM>  
Cc: boatanchors <boatanchors@theporch.com>  
Subject: Re: Antenna vs. Aerial  
Message-ID: <199801131952.TAA21198@punt1.hw.ac.uk>

On 1998-01-13 jcreid@CCGATE.HAC.COM said:  
jc>to the connection between the aerial and the receiver. The antenna  
jc>constitutes the combination of the aerial and the lead in. So there  
jc>you have it. Believe it or don't. -Jim N6SVS  
jc>jcreid@ccgate.hac.com

I've often contrived an adequate "Antenna System" with my coax feeder,  
extended length of inner, croc clips terminating the inner and the  
screen, and a small VC. Would that be an aerial, or an antenna?

I think we in the UK are beginning to drop the word "aerial". Haven't



seen it for a while on anything recent.

Bill

GM8APX, qthr=No 6, EH4 6JY==Cave felem==No Rectangulars=Ikke Hawkering

Cantabit vacuus coram latrone viator

Net-Tamer V 1.10 - Registered

-----  
Date: Tue, 13 Jan 1998 15:38:51 EST  
From: w1nml@juno.com (Lock Pingree)  
To: boatanchors@sco.theporch.com  
Subject: RAO-7 info needed  
Message-ID: <19980113.125740.8167.0.w1nml@juno.com>

Hi Gang !

Someone must have a complete manual for the RAO-7. I need the part that has the illustrations/diagrams, I think it's section 7 of the manual.

Be glad to reimburse expenses to some kind soul who would make a copy for me.

Thanks !

73,.....Lock

W1NML/7  
AMI #639 QCWA #15033  
Phoenix, AZ

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End of BOATANCHORS Digest 1877  
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